

REMARKS

Claims 1, 4-7, 9-10, 12-14, 42, and 45 are pending. The Applicant herein respectfully requests further examination of the application and reconsideration of the claims, in view of the amendments¹ and remarks presented herein.

The Applicant respectfully acknowledges the Examiner's indication, at page 11 of the above-referenced USPTO communication, of the allowable subject matter encompassed by the most recently pending claims 36-37, and 41. The Applicant now incorporates these limitations by amendment into all claims now presented. Particularly, all claims now pending are limited to the subject matter of most recently pending claim 37. Further, to simplify the structure of the claims, newly presented claim 45 incorporates the subject matter of most recently pending claim 41. The Applicant has moreover amended Claim 1 to particularly point out and distinctly claim the invention by now reciting "detectable" instead of "can be detected".

Since the Examiner has indicated that the subject matter now claimed is allowable the Applicant respectfully requests the Examiner to withdraw all rejections.

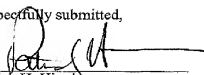
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For all the foregoing reasons, the Applicant submits that Claims 8, 11, 15-18, 25-26, 36-37, 40-41, and 43-44 are in condition for allowance. Early action toward this end is courteously solicited. The Examiner is kindly encouraged to telephone the undersigned in order to expedite any detail of the prosecution.

The Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 13-2165.

¹ Attached hereto, for the convenience of the Examiner, is a marked version of the claims now pending to show amendments presented herein.

Respectfully submitted,



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Marked Copy of Pending Claims

1. (Amended four times) A method for monitoring an enzymatic biomolecular reaction [which reaction is performed in a medium comprising at least one biomolecule,] by means of monitoring volatile compounds in a gas or vapor phase medium, wherein said medium is a mixture of one or more [enzymatic] nucleic acid reagents or products, comprising the steps of:

reacting one or more volatile organic tags with the medium to attach to said nucleic acid reagent or product;

screening the medium with a screening means comprising a multisensor array so that more than one physico-chemical change of a gas or vapor phase of a nucleic acid [can be detected] is detectable by the multisensor, [thereby providing] to provide information to produce at least one signal output;

transferring the signal output to a signal processing means responsive to differences in electromagnetic properties of the signal for generating a final output;

receiving the final output into a pattern recognition means sufficient to generate a measurement pattern of the information;

sorting the information in accordance with a set of class boundaries of the physico-chemical changes; and

monitoring sorted information representative of the identity and amount of a nucleic acid in the medium.

2. 4. (Amended) The method according to claim 1, wherein the multisensor array comprises a semiconductor gas sensor.

3. 5. (Twice amended) The method according to claim 1, wherein the multisensor array comprises at least one [of a doped] metal oxide gas sensor [or an undoped metal oxide gas sensor].

4. 6. (Amended) The method according to claim 1, wherein the multisensor array comprises at least one conductive polymer sensor.

5. 7. (Twice amended) The method according to claim 1, wherein the multisensor array [is] comprises at least one of a vibrating or a resonant micromechanical device.

6. 8. (Twice amended) The method according to claim 1, wherein the multisensor array [is] comprises a mass spectrometer.

7. 10. (Amended) The method according to claim 1, wherein the multisensor array comprises an optical sensing probe.

8. 12. (Twice amended) The method according to claim 1, wherein the information comprises at least one of odorous or volatile chemical species characteristic[s] of the presence of a nucleic acid.

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~~13~~. (Twice amended) The method according to claim 1, wherein at least part of the information detected by the multisensor array is a change[s] in the concentration of a nucleic acid.

¹⁰
~~14~~. (Thrice amended) The method according to claim 1, wherein at least part of the information detected by the multisensor array is a change[s] in [the] at least one secondary product of the reaction

¹¹
~~42~~. (Twice amended) A method according to claim 1, wherein the enzymatic biomolecular reaction is a polymerase chain reaction.

¹²
~~45~~. (New) The method according to claim ¹¹~~42~~ further comprising the step of controlling the polymerase chain reaction.

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